Secrl. I (1)-I—10,006—7-10-70.

(1) Number of pages 21

(2) Date of repair

(3) Initials of the Referencer

TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

Revenue DEPARTMENT

G.O. No. / B.P. No.	2051 A	Press / Mis.
Dated	20-6-1877	197

Not to be folded or roughly handled

2051A
1

GOVERNMENT OF MADRAS.

REVENUE DEPARTMENT.

20th June 1877, No. 2,051-A.

Famine Relief.

Read the following paper:—

No. 432-A. From Surgeon-Major W. R. CORNISH, F.R.C.S., Sanitary Commissioner for Madras, to J. H. GARSTIN, Esq., Additional Secretary to Government, Revenue Department, dated Madras, 11th June 1877, No. 665.

THE mortality occurring in the famine relief camps of this Presidency is one of the subjects that has been engaging my attention for some time past, and I have now the honor to submit, for the information of His Grace in Council, the results of my inquiries up to the end of May.

2. As it did not seem at all clear to me that the deaths occurring in newly established camps would be registered by the village officials, I addressed Collectors of districts on the subject, and requested that a weekly return of strength and mortality, according to a form circulated, might be sent to my office. This request has been very generally responded to, and for the month of May the information has been received in a tolerably complete form. The figures for the period previous to the 28th of April are not so complete, but will serve to indicate, in some degree, the rate of mortality in the camps for the periods they were severally in working. There are, I imagine, many small relief-houses in the several districts which do not furnish any returns to me, but which are noticed in the returns of the Board of Revenue.

3. I propose to show the mortality in relief-camps for irregular periods prior to the 28th of April, and distinctly for the month of May. As the camps had been in operation for various periods of time, the annual ratio of deaths to average strength has been calculated on the number of weeks each camp was in existence.

4. *Madras Camps.*—The relief-camps under the administration of the Commissioner of Police only are included in the return. For the period of fourteen weeks up to the 28th April, the average strength was 11,815 and the total deaths 2,511. The annual death ratio being 787·8 per mille. For the four weeks ending 26th May the strength was 16,970 and the deaths 615, or in the ratio of 471·1 per mille.

This shows an apparent improvement in the death-rate of the Madras camps in May, but, in my opinion, it is attributable mainly to the reception and accumulation in these camps of able-bodied persons; who were taken in because they were emigrants, and not because they were in that state of physical destitution which required immediate relief. Great efforts have recently been made to reduce the numbers of those who are in a condition to work, and I hope that by sending them back to their villages and districts, or to working gangs, it will be possible to find room for the numerous starving people from the provinces, who are now either on out-door relief, or picking up a precarious living by begging in the streets. I am quite certain that the town of Madras has never been fuller of really destitute wanderers than it is at this moment.

5. *Salem District.*—I have received returns from eleven camps in Salem District. These on the average had been eleven weeks in existence on the 28th April, and in that time the strength of the inmates averaged 5,393 and the actual deaths were 1,075, giving an annual ratio of 935·3 per mille. In the month of May,

the average strength of the camp population was 7,000 and the total deaths in the four weeks was 746, or in the annual ratio of 1,388 per mille. The heaviest mortality of all has occurred in the Dharampury camp, where, since the 2nd of January to the 26th May, 646 deaths occurred out of a weekly strength of about 1,120. Some deaths from cholera occurred in this camp, but the great bulk of the casualties here and elsewhere in the district were due to famine diseases. It is worthy of notice that the ratio of mortality to strength in the camps of the Salem District was higher in May than in the previous period, proving, I think, the severity of the famine and the extreme destitution of those who are now coming into the camps for relief.

6. *North Arcot.*—From the North Arcot District I have received returns only from five camps. There is a relief-camp at Chittoor which, I believe, has lately been opened, but no returns have been furnished. Up to the 28th April, the average strength of the destitute in camps for an average period of eight weeks was 1,870 and 340 deaths were recorded, giving an annual ratio of 1167·9 deaths to 1,000 living. For the month of May, I observe that the average number under camp relief was 4,202, and the total deaths 471, or in the proportion of 1,457 per mille of the strength. The mortality has been very high in the Vellore camp, and also in Punganoor and Palmanair, though in the latter camp the numbers were but few. In Punganoor, the great mortality of the camp inmates shows how much destitution there has been in that Zemindari. It must be borne in mind also, with regard to the North Arcot District, that many thousands of destitute and starved people have wandered away to Madras and other districts. Whether the centres of camp relief in this district are sufficiently numerous may, I think, be considered doubtful.

7. *Cuddapah.*—The returns for this district show some of the mortality in April up to certain weeks in May, included in May, and are otherwise not as accurate as I should wish. Up to April 28th, there are returns only for two camps, Voilpaud and Peelair, in the Voilpaud Taluq. These show a weekly strength of 681 for five weeks and 224 deaths. The May return, which for Cuddapah, Royachoti, and Madanapalli includes deaths occurring in March and April, shows an average strength of 6,465 and 925 deaths in fourteen camps. Adding the 224 deaths in Voilpaud Taluq in April, the Cuddapah camps have had altogether 1,149 deaths since they were formed. And in regard to Royachoti, Madanapalli, &c., many deaths occurred while the people were being fed, and before the regular camps for their reception were ready. Of these deaths no special record was kept. Owing to the way in which the information has been given, it is not possible to determine the ratio of mortality to strength for the month of May, but I am afraid it has been so heavy as to indicate very severe pressure and distress amongst the destitute classes in Cuddapah.

8. *Bellary.*—Returns have been received only from nine relief-camps in the Bellary District, and these, in some cases, do not show the dates on which the camps were established. Up to the end of April there appear to have been five camps with an average strength of 4,926, and 248 deaths. In May, nine camps return a strength of 6,419 with 585 deaths, but the returns for the Madakasira camp for *April* are brought into the *May* account, and thus add to the actual mortality of the month. The deaths in the Bellary camp (147) indicate in May a very high ratio of mortality.

9. *Nellore.*—The number of camps of which I have received returns is eight, and these only for the month of May. Of a strength of 3,801, there are returned 337 deaths, but some of these deaths appear to have occurred in April in Sooloorpett camp.

10. *Chingleput.*—There have been only four relief-camps instituted in this district; of these, two, one at Palaveram and another at Poonamallee, have been in work ever since the beginning of the year, while the camp at the Cortelliar and Chingleput are of recent origin. The strength of the Palaveram camp, I believe, includes the relief workers as well as the destitute. All that is necessary to record

of these camps at present is that they show 331 deaths up to 26th May, and that the weekly strength furnishing this mortality remains to be adjusted when corrected returns are received.

11. *Kurnool.*—The system pursued in the Kurnool District has been mainly one of village relief, but a camp was established at Khader-bagh on the 11th April, since which time out of an average weekly strength of 835, there have been 205 deaths. This indicates a very high rate of mortality, and probably of advanced destitution in the inmates.

12. Returns have been received of relief-camps in Madura, Tinnevelly, and South Arcot, but the comparatively low ratio of mortality in the camp inmates would appear to show that the privation and distress in these districts have been nothing out of the ordinary way. No returns of relief-camps have been received from the Coimbatore District.

13. To sum up the results, as regards the eight famine districts: the returns prior to April 28th show an average strength of 26,980 receiving relief in camps, and 4,576 deaths, while the returns for May show 50,284 on relief, and 4,037 deaths.

14. In the weekly reports sent to me the causes of death are generally given. In two or three camps there have been a few deaths put down to cholera or small-pox, but more than nine-tenths of the whole are specified as famine diseases, dysentery, dropsy, diarrhœa, and debility.

15. The accompanying abstract return will show the registered mortality of each camp. I trust to be able to have more complete figures on this subject for the following months.

16. From my own observation of relief-camps in Bellary, Cuddapah, Chingleput, and Madras, I do not think that the assembly of the people in centres of relief has had any bad effect on their health. Our camps have, on the whole, been generally, medical supervision, all of which might have failed to reach them under a system of village relief away from direct observation of the district officials. The great mortality I attribute to the hopelessness of the cases from the time they came under relief, and not to causes connected with the aggregation of sick and feeble, or insanitary conditions arising therefrom.

17. The only peculiar feature of the mortality in relief-camps is the frequency of diseased conditions of the bowels. In slow starvation, from which the great majority of the people have suffered before they seek relief, there is a diseased condition of the organs (lacteals), by means of which the nutriment of certain kinds of food is conveyed into the blood, and where this diseased condition exists to any great extent, there is very little prospect of recovery. The use of nutritious food fails to restore such persons because the organs which assimilate nutriment have lost their functions. But besides this special condition of the organs of assimilation, it frequently happens that life is cut short in the famine-stricken by dysentery, or diarrhœa, or secondary inflammation of the lungs. Infants at the breast and young children up to the 7th year, and old people appear to succumb in the greatest numbers to the famine. Cholera and small-pox especially find their victims ready at hand in those who have been impoverished by bad food.

18. It is worthy of note that not in one single instance has there been any reason to suspect that the victims of famine have died of what is called "relapsing" or "famine" fever in Europe. This disease, which is a variety of typhus fever, was recently supposed to have made its appearance in Bombay, but I believe that further inquiry has elicited the fact that the supposed relapsing fever was nothing more than the ordinary malarious fever always present in Bombay. Our famine people in Madras have not shown symptoms of fever of any kind. Their temperature, in fact, in the simple wasting of famine, is always lower than normal. In looking back for historical evidence of the diseases accompanying famine, I find

that in Goozerat in 1812, there was a very virulent epidemic of *small-pox* prevailing with famine, just as we have now in this Presidency. It is curious to note that while a variety of typus is the usual accompanying disease of famine in Europe, here in India, small-pox, another contagious malady, should take the place of relapsing fever.

19. Sufficient has been stated to show that chronic starvation (by which term I mean irregular and inadequate supplies of daily food continued for weeks or months) is a very deadly disease. So deadly is it, in fact, that when degenerative changes of the assimilative organs have set in, recovery is almost hopeless. In acute starvation, such as in the instance of men immured in a cold pit for five or six days without food, there is not time for the destructive changes to occur in the bowel, and food judiciously administered will restore such persons to health. This is not the case in regard to persons who by a long course of privation have been forced to seek the shelter of relief-camps, and wherever these people may be, in camps or in their own villages, the deaths must be appallingly high. In camps we can take cognizance of the mortality, but the village registration will, I fear, show it but imperfectly.

Districts.	Place at which Relief Camp was opened.	Date on which Camp was opened.	No. of Weeks up to 28th April.	Deaths up to Week ending 28th April.			Deaths in May up to Week ending 26th May.		
				Average Strength.	Total Deaths.	Ratio per 1,000 of Strength per Annum.	Average Strength.	Total Deaths.	Ratio per 1,000 of Strength per Annum.
Madras.	Vencatasawmi Naick's Market, Triplicane (Royapetta).	....	14	232	160	2560·3	369	95	3367·6
	Salt Cotar	....	14	1,639	453	1026·8	1,519	30	256·7
	Monegar Chowry and Tondiarpett.	....	14	4,276	709	615·7	7,173	214	387·8
	Yerkencherry	....	14	1,089	266	907·2	1,527	45	359·5
	Red Hills	....	14	4,579	923	748·6	5,292	231	477·2
	Total ..	....	..	11,815	2,511	787·8	16,970	615	471·1
Salem.	Pangalori	10th Feb. 1877 ..	11	299	48	759·2	396	28	919·2
	Namkal	21st Dec. 1876 ..	18	284	68	690·1	562	75	1784·8
	Darampuri	1st Feb. 1877 ..	13	1,129	424	1502·2	1,140	222	2581·5
	Do. Pennagaram ..	28th Mar. do. ..	4	..	..	..	604	77	1657·2
	Ornagaram	1st April do. ..	4	510	33	841·2	575	5	113·04
	Ahtur	1st Feb. do. ..	12	80	13	700·0	115	15	1695·6
	Tripatur	28th Jan. do. ..	13	615	149	1157·2	835	55	856·2
	Sunkerrydroog	16th do. do. ..	15	335	108	1116·4	647	51	1212·05
	Oussoor	6th Feb. do. ..	12	529	98	803·4	643	64	1293·9
	Uttengeri	1st Mar. do. ..	8	1,100	18	105·4	903	79	1137·3
	Do. Harour	6th Feb. do. ..	12	632	116	795·8	680	75	1433·8
	Total ..	....	11	5,393	1,075	935·3	7,009	746	1388·4
North Arcot.	Vellore	5th Feb. 1877 ..	12	847	179	916·1	1,212	146	1568·0
	Ranipett	23rd do. do. ..	9	996	169	1014·3	1,347	93	897·5
	Palmanair	1st April do. ..	4	117	2	222·2	199	27	1763·8
	Punganoor	22nd do. do. ..	1	..	..	..	916	168	1873·3
	Trichinoor	4th do. do. ..	3	..	..	..	528	37	490·5
	Total ..	....	8	1,879	340	1167·9	4,202	471	1457·1
Cuddapah.	Gondalore at Cheyar Embankment.	31st Mar. 1877 ..	4	..	..	..	108	16	692·9
	Budwail	30th April do. ..	..	..	..	..	288	13	586·3
	Sidhout	24th do. do. ..	..	..	..	..	140	13	1207·1
	Proddatur	2nd May do. ..	..	..	..	..	613	21	445·3
	Royachoti	17th April do. ..	..	..	..	..	1,040	172	2150·0
	Pullampet	2nd May do. ..	..	..	..	..	212	11	671·03
	Cuddapah	15th Mar. do. ..	6	..	..	..	441	137	1614·5
	Pulivendala	22nd do. do. ..	5	..	..	..	533	44	762·7
	Pourmamilla	21st April do. ..	..	..	..	..	533	84	2048·7
	Chitwail	7th May do. ..	..	..	..	..	143	5	454·5
	Madanapally	9th April do. ..	2	..	..	..	1,423	179	3265·9
	Kadri	12th Mar. do. ..	6	..	..	..	446	42	488·8
	Voilpaud	23rd do. do. ..	6	374	40	1096·2	343	81	3069·9
	Peelair, Voilpaud Taluq	18th do. do. ..	6	367	184	5029·6	396	105	3413·5
	Total ..	....	5	681	224	2850·7	6,465	925	1835·2
Bellary.	Adoni	....	..	65	2	..	365	6	213·7
	Sundoor	17th Mar. 1877 ..	6	368	1	24·4	467	10	278·3
	Bellary	11th do. do. ..	7	2,226	131	306·6	1,175	147	1520·3
	Cullianadroogam	....	..	..	..	..	486	32	856·0
	Hindupur	....	..	735	57	..	805	26	559·8
	Pennakondah	....	..	542	57	..	1,287	56	565·6
	Madaksira	....	..	..	..	..	890	237	5589·1
	Anantapur	....	..	..	..	..	405	14	898·7
	Dharmaveram	....	..	..	..	..	539	7	325·1
	Total ..	....	..	4,226	248	2617·3	6,419	585	1184·7
Nellore.	Kandukur	29th Feb 1877 ..	8	..	..	..	243	5	86·4
	Chundi	11th Mar. do. ..	7	..	..	..	76	..	..
	Gudur	1st Jan. do. ..	17	..	..	..	785	28	78·7
	Vencatagherry	26th Nov. 1876 ..	22	..	..	..	930	130	279·5
	Kaligherry	2nd May 1877 ..	..	..	..	..	628	24	496·3
	Sooloorpet	6th do. do. ..	..	..	..	..	616	144	2294·1
	Ongole	....	..	..	..	..	373	6	836·4
	Total ..	....	..	..	..	..	3,891	337	1152·5
Chingleput.	Cortelliar	25th April 1877 ..	1	..	..	..	2,045	79	502·2
	Palaverem	20th Dec. 1876 ..	18	1,694	65	110·8	1,863	29	208·7
	Poonamallee	16th do. do. ..	19	601	313	2754·3	807	43	692·7
	Chingleput	15th May 1877 ..	..	..	..	..	366	2	281·4
	Total ..	....	..	2,295	178	212·2	4,592	153	433·1
Kurnool.	Khader-bagh	11th April 1877 ..	2	..	..	..	835	205	2127·7
	Grand Total ..	....	..	26,980	4,576	..	50,284	4,037	..

Revenue Department, 20th June 1877, No. 2,051-A.

No. 432-B. ORDER THEREON, 20th June 1877, No. 2,051-A.

Miscellaneous.

COMMUNICATED to the Revenue Board and to the Collectors of distressed districts.

2. The Government observe that the classes to which the report relates are those unable to work.

(True Extract)

(Signed) J. H. GARSTIN,
Additional Secretary to Government.

To the Board of Revenue.
,, all Collectors of distressed Districts.
,, the Sanitary Commissioner.
,, the Financial Department.

Rad. F. R. Bantleman.

From Surgeon-Major W. R. CORNISH, F.R.C.S., Sanitary Commissioner for Madras, to J. H. GARSTIN, Esq., Additional Secretary to Government, Revenue Department, dated Madras, 11th June 1877, No. 665.

THE mortality occurring in the famine relief camps of this Presidency is one of the subjects that has been engaging my attention for some time past, and I have now the honor to submit, for the information of His Grace in Council, the results of my inquiries up to the end of May.

2. As it did not seem at all clear to me that the deaths occurring in newly established camps would be registered by the village officials, I addressed Collectors of districts on the subject, and requested that a weekly return of strength and mortality, according to a form circulated, might be sent to my office. This request has been very generally responded to, and for the month of May the information has been received in a tolerably complete form. The figures for the period previous to the 28th of April are not so complete, but will serve to indicate, in some degree, the rate of mortality in the camps for the periods they were severally in working. There are, however, many small relief-houses in the several districts which do not furnish any returns to me, but which are noticed in the returns of the Board of Revenue.

3. I propose to show the mortality in relief-camps for irregular periods prior to the 28th of April, and distinctly for the month of May. As the camps had been in operation for various periods of time, the annual ratio of deaths to average strength has been calculated on the number of weeks each camp was in existence.

4. *Madras Camps.*—The relief-camps under the administration of the Commissioner of Police only are included in the return. For the period of fourteen weeks up to the 28th April, the average strength was 11,815 and the total deaths 2,511. The annual death ratio being 787·8 per mille. For the four weeks ending 26th May the strength was 16,970 and the deaths 615, or in the ratio of 471·1 per mille.

This shows an apparent improvement in the death-rate of the Madras camps in May, but, in my opinion, it is attributable mainly to the reception and accumulation in these camps of able-bodied persons, who were taken in because they were emigrants, and not because they were in that state of physical destitution which required immediate relief. Great efforts have recently been made to reduce the numbers of those who are in a condition to work, and I hope that by sending them back to their villages and districts, or to working gangs, it will be possible to find room for the numerous starving people from the provinces, who are now either on out-door relief, or picking up a precarious living by begging in the streets. I am quite certain that the town of Madras has never been fuller of really destitute wanderers than it is at this moment.

5. *Salem District.*—I have received returns from eleven camps in Salem District. These on the average had been eleven weeks in existence on the 28th April, and in that time the strength of the inmates averaged 5,393 and the actual deaths were 1,075, giving an annual ratio of 935·3 per mille. In the month of May, the average strength of the camp population was 7,000 and the total deaths in the four weeks was 746, or in the annual ratio of 1,388 per mille. The heaviest mortality of all has occurred in the Dharampury camp, where, since the 2nd of January to the 26th May, 646 deaths occurred out of a weekly strength of about 1,120. Some deaths from cholera occurred in this camp, but the great bulk of the casualties here and elsewhere in the district were due to famine diseases. It is worthy of notice that the ratio of mortality to strength in the camps of the Salem District was higher in May than in the previous period, proving, I think, the severity of the famine and the extreme destitution of those who are now coming into the camps for relief.

6. *North Arcot.*—From the North Arcot District I have received returns only from five camps. There is a relief-camp at Chittoor which, I believe, has lately been opened, but no returns have been furnished. Up to the 28th April, the average strength of the destitute in camps for an average period of eight weeks was 1,870 and 340 deaths were recorded, giving an annual ratio of 1167·9 deaths to

1,000 living. For the month of May, I observe that the average number under camp relief was 4,202, and the total deaths 471, or in the proportion of 1,457 per mille of the strength. The mortality has been very high in the Vellore camp, and also in Punganoor and Palmanair, though in the latter camp the numbers were but few. In Punganoor, the great mortality of the camp inmates shows how much destitution there has been in that Zemindari. It must be borne in mind also, with regard to the North Arcot District, that many thousands of destitute and starved people have wandered away to Madras and other districts. Whether the centres of camp relief in this district are sufficiently numerous may, I think, be considered doubtful.

7. *Cuddapah.*—The returns for this district show some of the mortality in April up to certain weeks in May, included in May, and are otherwise not as accurate as I should wish. Up to April 28th, there are returns only for two camps, Voilpaud and Peelair, in the Voilpaud Taluq. These show a weekly strength of 681 for five weeks and 224 deaths. The May return, which for Cuddapah, Royachoti, and Madanapalli includes deaths occurring in March and April, shows an average strength of 6,465 and 925 deaths in fourteen camps. Adding the 224 deaths in Voilpaud Taluq in April, the Cuddapah camps have had altogether 1,149 deaths since they were formed. And in regard to Royachoti, Madanapalli, &c., many deaths occurred while the people were being fed, and before the regular camps for their reception were ready. Of these deaths no special record was kept. Owing to the way in which the information has been given, it is not possible to determine the ratio of mortality to strength for the month of May, but I am afraid it has been so heavy as to indicate very severe pressure and distress amongst the destitute classes in Cuddapah.

8. *Bellary.*—Returns have been received only from nine relief-camps in the Bellary District, and these, in some cases, do not show the dates on which the camps were established. Up to the end of April there appear to have been five camps with an average strength of 4,926, and 248 deaths. In May, nine camps return a strength of 6,419 with 585 deaths, but the returns for the Madakasira camp for *April* are brought into the *May* account, and thus add to the actual mortality of the month. The deaths in the Bellary camp (147) indicate in May a very high ratio of mortality.

9. *Nellore.*—The number of camps of which I have received returns is eight, and these only for the month of May. Of a strength of 3,801, there are returned 337 deaths, but some of these deaths appear to have occurred in April in Sooloorpett camp.

10. *Chingleput.*—There have been only four relief-camps instituted in this district; of these, two, one at Palaveram and another at Poonamallee, have been in work ever since the beginning of the year, while the camp at the Cortelliar and Chingleput are of recent origin. The strength of the Palaveram camp, I believe, includes the relief workers as well as the destitute. All that is necessary to record of these camps at present is that they show 331 deaths up to 26th May, and that the weekly strength furnishing this mortality remains to be adjusted when corrected returns are received.

11. *Kurnool.*—The system pursued in the Kurnool District has been mainly one of village relief, but a camp was established at Khader-bagh on the 11th April, since which time out of an average weekly strength of 835, there have been 205 deaths. This indicates a very high rate of mortality, and probably of advanced destitution in the inmates.

12. Returns have been received of relief-camps in Madura, Tinnevelly, and South Arcot, but the comparatively low ratio of mortality in the camp inmates would appear to show that the privation and distress in these districts have been nothing out of the ordinary way. No returns of relief-camps have been received from the Coimbatore District.

13. To sum up the results, as regards the eight famine districts: the returns prior to April 28th show an average strength of 26,980 receiving relief in camps, and 4,576 deaths, while the returns for May show 50,284 on relief, and 4,037 deaths.

14. In the weekly reports sent to me the causes of death are generally given. In two or three camps there have been a few deaths put down to cholera or small-pox, but more than nine-tenths of the whole are specified as famine diseases, dysentery, dropsy, diarrhœa, and debility.

15. The accompanying abstract return will show the registered mortality of each camp. I trust to be able to have more complete figures on this subject for the following months.

16. From my own observation of relief-camps in Bellary, Cuddapah, Chingleput, and Madras, I do not think that the assembly of the people in centres of relief has had any bad effect on their health. Our camps have, on the whole, been very free of epidemics, notwithstanding the general prevalence of small-pox and cholera in the districts. In these camps the poor have had shelter, food and, generally, medical supervision, all of which might have failed to reach them under a system of village relief away from direct observation of the district officials. The great mortality I attribute to the hopelessness of the cases from the time they came under relief, and not to causes connected with the aggregation of sick and feeble, or insanitary conditions arising therefrom.

17. The only peculiar feature of the mortality in relief-camps is the frequency of diseased conditions of the bowels. In slow starvation, from which the great majority of the people have suffered before they seek relief, there is a diseased condition of the organs (lacteals), by means of which the nutriment of certain kinds of food is conveyed into the blood, and where this diseased condition exists to any great extent, there is very little prospect of recovery. The use of nutritious food fails to restore such persons because the organs which assimilate nutriment have lost their functions. But besides this special condition of the organs of assimilation, it frequently happens that life is cut short in the famine-stricken by dysentery, or diarrhœa, or secondary inflammation of the lungs. Infants at the breast and young children up to the 7th year, and old people appear to succumb in the greatest numbers to the famine. Cholera and small-pox especially find their victims ready at hand in those who have been impoverished by bad food.

18. It is worthy of note that not in one single instance has there been any reason to suspect that the victims of famine have died of what is called "relapsing" or "famine" fever in Europe. This disease, which is a variety of typhus fever, was recently supposed to have made its appearance in Bombay, but I believe that further inquiry has elicited the fact that the supposed relapsing fever was nothing more than the ordinary malarious fever always present in Bombay. Our famine people in Madras have not shown symptoms of fever of any kind. Their temperature, in fact, in the simple wasting of famine, is always lower than normal. In looking back for historical evidence of the diseases accompanying famine, I find that in Goozerat in 1812, there was a very virulent epidemic of *small-pox* prevailing with famine, just as we have now in this Presidency. It is curious to note that while a variety of typus is the usual accompanying disease of famine in Europe, here in India, small-pox, another contagious malady, should take the place of relapsing fever.

19. Sufficient has been stated to show that chronic starvation (by which term I mean irregular and inadequate supplies of daily food continued for weeks or months) is a very deadly disease. So deadly is it, in fact, that when degenerative changes of the assimilative organs have set in, recovery is almost hopeless. In acute starvation, such as in the instance of men immured in a coal pit for five or six days without food, there is not time for the destructive changes to occur in the bowel, and food judiciously administered will restore such persons to health. This is not the case in regard to persons who by a long course of privation have been forced to seek the shelter of relief-camps, and wherever these people may be, in camps or in their own villages, the deaths must be appallingly high. In camps we can take cognizance of the mortality, but the village registration will, I fear, show it but imperfectly.

Districts.	Place at which Relief Camp was opened.	Date on which Camp was opened.	No. of Weeks up to 28th April.	Deaths up to Week ending 28th April. Average Strength.	Total Deaths.	Ratio per 1,000 of Strength per Annum.	Deaths in May up to Week ending 26th May. Average Strength.	Total Deaths.	Ratio per 1,000 of Strength per Annum.
Madras.	Vencatasawmi Naick's Market, Triplicane (Royapetta).	....	14	232	160	2560·3	359	95	3367·6
	Salt Cotar	....	14	1,639	453	1022·8	1,519	30	256·7
	Monegar Choultry and Tondiarpett.	....	14	4,276	709	615·7	[illegible]	[illegible]	387·8
	Yerkencherry	....	14	1,089	266	907·2	1,627	45	359·5
	Red Hills	....	14	4,579	923	748·6	6,292	231	477·2
	Total ..	....	..	11,815	2,511	687·8	16,970	615	471·1
Salem.	Gangaleri	10th Feb. 1877 ..	11	299	48	759·2	396	28	919·2
	Namkal	21st Dec. 1876 ..	18	284	68	690·1	562	76	1734·8
	Darampuri	1st Feb. 1877 ..	13	1,129	424	1502·2	1,140	222	2531·5
	Do. Pennagaram ..	28th Mar. do. ..	4	..	..	..	604	77	1667·2
	Ornagaram	1st April do. ..	4	516	33	841·2	575	5	113·04
	Ahtur	1st Feb. do. ..	12	86	13	700·0	115	15	1695·6
	Tripatur	28th Jan. do. ..	13	515	149	1157·2	835	55	856·2
	Sunkerrydroog	16th do. do. ..	15	335	108	1116·4	547	51	1212·06
	Oossoor	6th Feb. do. ..	12	529	98	803·4	643	64	1293·9
	Uttongeri	1st Mar. do. ..	8	1,100	18	106·4	903	79	1187·3
	Do. Haroor	6th Feb. do. ..	12	682	116	795·8	680	76	1433·8
	Total ..	....	11	5,393	1,075	935·3	7,000	746	1388·4
North Arcot.	Vellore	5th Feb. 1877 ..	12	847	179	916·1	1,212	146	1566·0
	Ranipett	23rd do. do. ..	9	906	159	1014·3	1,347	93	897·5
	Palmanair	1st April do. ..	4	117	2	222·2	199	27	1763·8
	Punganoor	22nd do. do. ..	1	..	..	..	916	168	1873·3
	Trichinoor	4th do. do. ..	3	..	..	..	528	37	490·5
	Total ..	....	8	1,870	340	1167·9	4,202	471	1457·1
Cuddapah.	Goondalore at Cheyar Embankment.	31st Mar. 1877 ..	4	..	..	..	108	16	692·9
	Budwail	30th April do. ..	..	..	..	..	..	..	..
	Sidhout	24th do. do. ..	..	..	..	..	288	13	536·3
	Proddatur	2nd May do. ..	..	..	..	..	140	13	1207·1
	Royachoti	17th April do. ..	..	..	..	..	613	21	445·3
	Pullampet	2nd May do. ..	..	..	..	..	1,040	172	2150·6
	Cuddapah	15th Mar. do. ..	6	..	..	..	213	11	671·03
	Pulivendala	22nd do. do. ..	5	..	..	..	441	137	1614·5
	Pourmamilla	21st April do. ..	..	..	..	..	333	44	762·7
	Chitwail	7th May do. ..	..	..	..	..	533	84	2048·7
	Madanapally	9th April do. ..	2	..	..	..	143	5	454·5
	Kadri	12th Mar. do. ..	6	..	..	..	1,425	179	3265·9
	Voilpaud	23rd do. do. ..	6	374	40	1096·3	446	42	488·8
	Peelair, Voilpaud Taluq	18th do. do. ..	6	307	184	5020·6	343	81	3062·9
	Total ..	....	6	681	224	2850·7	399	105	3418·5
Bellary.	Adoni	....	..	65	2	..	6,465	925	1835·2
	Sundoor	17th Mar. 1877 ..	6	368	1	24·4	365	6	213·7
	Bellary	11th do. do. ..	7	3,226	131	306·6	467	10	278·3
	Callianadroogam	....	..	..	..	..	1,175	147	1626·3
	Hindupur	....	..	723	57	..	486	32	856·0
	Pennakondah	....	..	542	67	..	805	26	559·8
	Madaksira	....	..	..	..	..	1,287	56	565·6
	Anantapur	....	..	..	..	..	890	287	5589·1
	Dharmaveram	....	..	..	..	..	405	14	898·7
	Total ..	....	..	4,926	248	2617·0	539	7	225·1
Nellore.	Kundukur	29th Feb 1877 ..	8	..	..	..	6,419	585	1184·7
	Chundi	11th Mar. do. ..	7	..	..	..	243	5	86·4
	Gudur	1st Jan. do. ..	17	..	..	..	76	..	..
	Vencatagherry	26th Nov. 1876 ..	22	..	..	..	735	28	78·7
	Kaligherry	2nd May 1877 ..	..	..	..	..	930	130	278·5
	Sooloorpet	6th do. do. ..	..	..	..	..	628	24	496·8
	Ongole	....	..	..	..	..	816	144	2294·1
	Total ..	....	..	..	..	..	373	6	836·4
Chingleput.	Cortelliar	25th April 1877 ..	1	..	..	..	3,801	337	1132·6
	Palaveram	26th Dec. 1876 ..	18	1,554	65	110·8	2,045	79	502·2
	Poonamallee	16th do. do. ..	19	661	113	2754·3	1,806	29	208·7
	Chingleput	15th May 1877 ..	..	..	..	..	807	43	692·7
	Total ..	....	..	2,295	178	212·2	366	2	281·4
Kurnool.	Khader-bagh	11th April 1877 ..	2	..	..	..	4,592	153	433·1
	Grand Total ..	....	..	26,980	4,576	..	835	205	2127·7
							50,284	4,037	..

Proof for approval

REVENUE DEPARTMENT.

MINUTE BY THE HON. SIR W. ROBINSON, K.C.S.I.

DR. CORNISH has analysed the results of the acute and chronic disease—starvation—which is abroad amongst our people as respects relief-camps in this able paper. The death-rate during May—for which reliable returns are submitted—is shown in the margin in the order of the mortality in each district. It ranges from 2,127·7 per mille in Kurnool (one camp) to 471·1 and 433·1 per mille in Madaas and Chingleput.

	Per mille.
Kurnool	2,127·7
Cuddapah	1,835·2
North Arcot	1,457·1
Salem	1,388·4
Bellary	1,184·7
Nellore	1,132·6
Madras	471·1
Chingleput	433·1

Camps are where the wandering classes are chiefly relieved, and possibly one factor of the sad result may be found in the tardiness with which home (village) relief has been organized and applied in most districts for wandering adds greatly to the danger and mortality of the distressed. The statistics of village relief are still very imperfect, but the Board's returns for the last week in May and first week of June (which comprise no doubt the actuals of May) indicate feeble action in this respect in Cuddapah, North Arcot, and Nellore, where the camp death-rate has been very high. Kurnool is altogether absent in the second week (ending 2nd June) and is represented by 6,557 in the first week (ending 26th May). I commend this matter to the anxious consideration of my honorable colleagues and of the Sanitary Commissioner.

I agree with Dr. Cornish's paragraph 16 on the whole, but I cannot divest myself of the impression that earlier and more systematic home (village) relief would have restrained wandering, relieved our camps, and mitigated the hopelessness of the cases which have come under relief in camps.

The statistics of our lagging home (village) relief of the destitute are now receiving increased attention at the hands of the district officers and of the Board, but doubtless are still very incomplete. Yet, fragmentary though they be, they are very suggestive. The Board's return for the week ending on the 26th May show that, while we were contending with a death-rate of 524 per mille in our camps throughout the Presidency, the death-rate under home relief was only 90. Cuddapah lost 1,753 per mille in camps, but only 324 per mille amongst those relieved at home. Bellary lost 280 per mille in camp and 50 amongst the latter. Salem lost 1,267 per mille in camp and 124 per mille under home relief, and so on.

The same returns (Board's Proceedings dated 8th June) for the week ending 2nd June again present this difference in a modified form. The death-rate in camps average 374 per mille for the whole of the famine districts, while under the category of home relief it was 160 per mille. Cuddapah lost 1,140 per mille in camps and 227 per mille where relief was issued at home. In Bellary and North Arcot (where mortality was very great under both heads) the difference was less. Salem lost 941 per mille in camp against 119 per mille under home relief, and so on. I will not attempt to account for the difference noticed; some advantages of home relief readily suggest themselves, but the matter will require investigation. The fact of an important difference, however, remains, and is one that points to the great importance of calling the attention of district officers to this branch of famine administration. I am myself prepared to order that the practice (wherever it exists) of sweeping miserable village destitutes out of their homes into distant relief centres (camps) be abandoned, except where medical relief and special care is urgently needed.

Possibly some of the expenditure which is still being incurred on works—more especially in respect to relief officers' non-effected and weakly gangs of emaciates and women—might appear in an equally effective and humane form under the head of home relief with no real increase of cost to the State. District Officers might be asked on this point. My limited observation has led me to this impression on more than one occasion.

The difference of expense connected with the two systems does not directly belong to this paper —and no statistics enable me to compare it in respect to up-country districts generally. In the Madras camps each person relieved has cost a little over three annas; the village dole in which recruited starvelings are being dispersed to their villages (when restored to a safe condition) little exceeds one anna as a tentative measure under the recent orders of Government. I think that the village dole is everywhere too low and will require revision, but it can be increased and still leave a saving as compared with camp relief in Madras at least. In Trivellore and other places in the Chingleput District and in Salem I roughly calculated the expense of shelter and feeding in camps to be considerably above what home relief should cost.

The last sentence in Dr. Cornish's letter obviously does not apply to the registration of death amongst those formally brought on the home (parish) relief rolls. There is no inaccuracy here. I agree with Dr. Cornish that the general village mortuary registration—defective under all circumstances—will be very seriously so in this year of confusion.

W. ROBINSON.

16th June 1877.

Rec'd 5 July/77

20/10/5

MINUTE BY THE HON. SIR W. ROBINSON, K.C.S.I.

DR. CORNISH has analysed the results of the acute and chronic disease—starvation—which is abroad amongst our people as respects relief-camps in this able paper. The death-rate during May—for which reliable returns are submitted—is shown in the margin in the order of the mortality in each district. It ranges from 2,127·7 per mille in Kurnool (one camp) to 471·1 and 433·1 per mille in Madras and Chingleput.

	Per mille.
Kurnool	2,127·7
Cuddapah	1,835·2
North Arcot	1,457·1
Salem	1,388·4
Bellary	1,184·7
Nellore	1,152·5
Madras	471·1
Chingleput	433·1

Camps are where the wandering classes are chiefly relieved, and possibly one factor of the sad result may be found in the tardiness with which home (village) relief has been organized and applied in most districts; for wandering adds greatly to the danger and mortality of the distressed. The statistics of village relief are still very imperfect, but the Board's returns for the last week in May and first week of June (which comprise no doubt the actuals of May) indicate feeble action in this respect in Cuddapah, North Arcot, and Nellore, where the camp death-rate has been very high. Kurnool is altogether absent in the second week (ending 2nd June) and it is represented by 6,557 in the first week (ending 26th May). I commend this matter to the anxious consideration of my honorable colleagues and of the Sanitary Commissioner.

I agree with Dr. Cornish's paragraph 16 on the whole, but I cannot divest myself of the impression that earlier and more systematic home (village) relief would have restrained wandering, relieved our camps, and mitigated the hopelessness of the cases which have come under relief in camps.

The statistics of our lagging home (village) relief of the destitute are now receiving increased attention at the hands of the district officers and of the Board, but doubtless are still very incomplete. Yet, fragmentary though they be, they are very suggestive. The Board's returns for the week ending on the 26th May show that, while we were contending with a death-rate of 524 per mille in our camps throughout the Presidency, the death-rate under home relief was only 90. Cuddapah lost 1,753 per mille in camps, but only 324 per mille amongst those relieved at home. Bellary lost 280 per mille in camp and 50 amongst the latter. Salem lost 1,267 per mille in camp and 124 per mille under home relief, and so on.

The same returns (Board's Proceedings dated 8th June) for the week ending 2nd June again present this difference in a modified form. The death-rate in camps average 374 per mille for the whole of the famine districts, while under the category of home relief it was 160 per mille. Cuddapah lost 1,140 per mille in camps and 227 per mille where relief was issued at home. In Bellary and North Arcot (where mortality was very great under both heads) the difference was less. Salem lost 941 per mille in camp against 119 per mille under home relief, and so on. I will not attempt to account for the difference noticed; some advantages of home relief readily suggest themselves, but the matter will require investigation. The fact of an important difference, however, remains, and is one that points to the great importance of calling the attention of district officers to this branch of famine administration. I am myself prepared to order that the practice (wherever it exists) of sweeping miserable village destitutes out of their homes into distant relief centres (camps) be abandoned, except where medical relief and special care is urgently needed.

Possibly some of the expenditure which is still being incurred on works—more especially in respect to relief officers' non-effective and weakly gangs of emaciates and women—might appear in an equally effective and humane form under the head of home relief, with no real increase of cost to the State. District Officers might be asked on this point. My limited observation has led me to this impression on more than one occasion.

The difference of expense connected with the two systems does not directly belong to this paper —and no statistics enable me to compare it in respect to up-country districts generally. In the Madras camps each person relieved has cost a little over three annas; the village dole on which recruited starvelings are being dispersed to their villages (when restored to a safe condition) little exceeds one anna as a tentative measure under the recent orders of Government. I think that the village dole is everywhere too low and will require revision; but it can be increased and still leave a saving as compared with camp relief in Madras at least. In Trivellore and other places in the Chingleput District and in Salem I roughly calculated the expense of shelter and feeding in camps to be considerably above what home relief should cost.

The last sentence in Dr. Cornish's letter obviously does not apply to the registration of death amongst those formally brought on the home (parish) relief rolls. There is no inaccuracy here. I agree with Dr. Cornish that the general village mortuary registration—defective under all circumstances—will be very seriously so in this year of confusion, both as respects extensive omission, and character of disease. The amount of cholera is greatly exaggerated.

W. ROBINSON.

16th June 1877.

Mr. Cornish Rep
Dr. Cornish Rep
Ill pox

Stat Office Ret pox

Dr Cornish has
analysed the results
of the acute & chronic
diseases - Mortality -
which is abroad amongst
our people as respects
relief Camps in this
table paper. The death
rate during May - for
which reliable returns
are submitted
in the margin in the order
of the Districts in Each
District. It ranges
from 2,127.7 per Mille
in Kurnool (one Camp)
to 471.1 and 433.1 per Mille
in Madras & Chingleput

Camps are where
the wandering classes
are chiefly relieved
and possibly one factor
of the bad results

Kurnool — 2,127.7 per Mille
Cuddapah — 1,835.2 — " —
N. Arcot — 1,457.1 — " —
Salem — 1,388.4 — " —
Bellary — 1,184.7 — " —
Nellore — 1,152.5 — " —
Madras — 471.1 — " —
Chingleput — 433.1 — " —

This is the Annual
Death rate, deduced from
the May returns

cir
for
order

R 4539

C15-6-11

may be found in
the tar districts with
which home (village)
relief has been organized
and applied in most
Districts, for wandering
adds greatly to the
danger and mortality
of the destressed. The
Statistics of village
relief are still very
imperfect but the
Boards returns for
the last week in May
and first week of June
(which Comprise no doubt
the actuals of May)
indicate feeble action
in this respect in
Cuddapah, Northern
and Nellore, where
the Camp death rate
has been very high.
Kurnool is altogether
absent

D. Commr. Letter No 65

Yes - I shd send it
as an enclosure
and alluding to it

15/6

Forwarded
16/6 PWS
Ack

Jno
Madras
15/6/77.

Yes - I shd send it as an enclosure and alluding to it

15/6

Forwarded
16/6 PWS
Ack

This Govt has
forwarding letter.
I presume it has
Govt copies here.

J.G.
16.6.

Received from Govt. of Madras

5. Salem District. I have received returns from 11 camps in Salem District. These, on the average had been 11 weeks in existence on the 28th April, and in that time the strength of the inmates averaged 5,293 and the actual deaths were 1075, giving an annual ratio of 935.3 per mille. In the month of May, the average strength of the camp population was 7000, and the total deaths in the four weeks was 746, or in the annual ratio of 1388 per mille. The heaviest mortality of all has occurred in the Dharampury camp, where, since the 2nd of January to the 26 May, 646 deaths occurred out of a weekly strength of about 1120. Some deaths from cholera occurred in this camp, but the great bulk of the casualties here, and elsewhere in the district, were due to famine diseases. It is worthy of notice that the ratio of mortality to strength in the camps of the Salem district was higher in May than in the previous period, proving I think the severity of the famine, and the extreme destitution of those who are now coming into the camps for relief.

6. North Arcot. From the North Arcot district, I have received returns only from 5 camps. There is a relief camp at Chittoor, which I believe has lately been opened, but no returns have been furnished. Up to the 28 April, the average strength of the destitute in camps for an average period of 8 weeks was 1870, and 340 deaths were recorded, giving an annual ratio of 1167.9 deaths to 1000 living. For the month of May, I observe that the average number under camp relief was 4202, and the total deaths 471, or in the proportion of 1457 per mille of the strength. The mortality has

has been very high in the Vellore camps, and also in the Poonganoor and Palmanair, though in the latter camps the numbers were but few. In Poonganoor, the great mortality of the camps inmates shows how much destitution there has been in that Zemindary. It must be borne in mind also with regard to the North Arcot district that many thousands of destitute and starved people have wandered away to Madras and other districts. Whether the centres of camp relief in this district are sufficiently numerous, may I think be considered doubtful.

7. Cuddapah. The returns for this district show some of the mortality in April up to certain works in May, included in May, and are otherwise not as accurate as I should wish. Up to April 28th there are returns only for two camps, Veilpaud and Pulais, in the Veilpaud Taluq. These show a weekly strength of 681 for five weeks and 224 deaths. The May return, which for Cuddapah, Royachotti, and Madanapuli, includes deaths occurring in March and April, shows an average strength of 6465, and 926 deaths in 11 camps. Adding the 224 deaths in Veilpaud taluq in April, the Cuddapah camps have had altogether 1,149 deaths since they were formed. And in regard to Royachotti, Madanapuli &c, many deaths occurred while the people were being fed, and before the regular camps for their reception were ready. Of these deaths no special record was kept. Owing to the way in which the information has been given, it is not possible to determine the ratio of mortality to

Govt. of India Works.

REVENUE.

JUNE

No. 452 A—432 B.

Districts	Place at which Relief Camps were opened	Date of first opening of Relief Camp	No. of Weeks Camp was open	Deaths up to week ending 29th April			Deaths up to week ending 26th May		
				Average Strength	Total Deaths	Ratio per mensem per 1000	Average Strength	Total Deaths	Ratio per mensem per 1000
Madura	Venkatasamme Tanks		14	232			359		
	Market Superintendent Pagoda		14	1639			1519		
	Salt Cotar								
	Managar Chaultry and Tandampatti		14	4276			7173		
	Nerkanikarry		14	1049			1627		
	Pad Tails		14	4579			6292		
	Total			11815			16970		
Vellore	Gingalore	10 Feby 177	11	299			396		
	Kaverkal	21 Decr 176	18	284			562		
	Daramparre	1 Feby 177	13	1129			1140		
	do Pennagaram	28 March	4				604		
	Ormgaram	1 apl	4	510			575		
	Arkon	1 Feby	12	380			115		
	Tripatore	28 Jany	13	585			935		
	Chinkarry Droog	16 Jany	15	335			547		
	Cossaver	6 Feby	12	529			643		
	Vlangare	1 March	9	1100			903		
	do Karoore	6 Feby	12	632			600		
	Total		11	6393			7035		
	Vellore	5 Feby 177	12	847			1212		
	Rampett	23 " "	9	906			1347		
	Palmanair	1 apl "	4	117			199		
	Punganoor	22 " "	1				916		
	Trichinor	4 " "	3				520		
	Total		8	1070			4202		
	Coondaloor at Chayay	31 March 177	4				108		
	Budwait an Encampment	30 apl "	"				280		
	Sadhaut	24 " "	"				140		
	Goddalore	2 May "	"				613		
	Rayachoti	17 apl "	"				1040		
	Pullampet	2 May "	"				213		
	Cuddapah	15 March "	6				441		
	Cullivendala	22 " "	5				333		
	Cavemandla	21 apl "	"				533		
	Chativant	7 May "	"				143		
	Cadrapally	9 apl "	2				1425		
	Cadri	12 March "	6				446		
	Tulpaud	23 " "	5	374			343		
	Nellore Tulpaud Taluq	10 " "	6	307			399		
	Total		5	681			6465		
			15 H	9	3	4	3	4	4	3	4

Effective shrubbage from
under the head of Stone
Relief in the no real in-
crease of cost to the
State - District Agents
might be asked on this
point. My limited ob-
servation has led me
to this impression on more
than one occasion.

The difference of
expense connected with
the two systems does
not directly belong to the
paper - and no Statistics
Enable me to compare
with respect to
upcountry Districts generally.
In the Madras Campaign
Each person relieved
has cost a little over
Rs 2 - the Villages
destitute Agriculturists
dole in which they were
being destroyed & their
Villages (when restored
to a safe condition) little
to exceed one anna as a
tentative measure under
the recent orders of
Government

Government. I think that the village lole is everywhere too low and will require revision; but it can be increased and still leave a saving as compared with the Camp relief in Madras but somewhat less than elsewhere, in the Chingleput District and in Salem. I might calculate the difference of shelter & feeding in Camps to be counterbalanced above that home relief should cost.

The last sentence in Dr Cornish's letter obviates the necessity of registration of deaths amongst those formally brought on the Home (Parish) relief rolls. There is no inaccuracy here. I agree with Dr Cornish that the general village mortuary registration — defective under ale circumstances — will be very serious less in this way of comparison.

16/6 H.H. Robinson

[illegible] Sanitary Commissioner, Madras,

[illegible] Additional Secretary to Government,

Sir, [illegible] mortality occurring in the famine relief Camps of this Presidency is one of the subjects that has been engaging my attention for some time past, and I have now the honor to submit for the information of His Grace in Council, the results of my enquiries up to the end of May.

It did not seem at all clear to me that the deaths occurring in newly established camps would be registered by the village officials. I addressed Collectors of districts on the subject, and requested that a weekly return of strength and mortality, according to a form circulated, might be sent to my office. This request has been very generally responded to, and for the month of May the information has been received in a tolerably complete form. The figures for the period previous to the 28th of April are not so complete, but will serve to indicate in some degree the rate of mortality in the camps for the periods they were severally in working.

There are I imagine many small relief houses in the several districts which do not furnish any returns to me, but which are noticed in the returns of the Board of Revenue.

No. 665

Office of Sanitary Commissioner,
Madras, 11th June 1877.

3. I propose to show the mortality in relief camps for irregular periods prior to the 28th of April, and distinctly for the month of May. As the camps had been in operation for various periods of time, the annual ratio of deaths to average strength has been calculated on the number of weeks each camp was in existence.

4. Madras Camps. The relief camps under the administration of the Commissioner of Police only are included in the return. For the period of 14 weeks up to the 28th April the average strength was 11,815, and the total deaths 2,571. The annual death ratio being 78.8 per mille. For the 4 weeks ending 26 May the strength was 16,970, and the deaths 615, or in the ratio of 47.1 per mille.

This shows an apparent improvement in the death rate of the Madras camps in May, but in my opinion it is attributable mainly to the reception and accumulation in these camps of able-bodied persons who were taken in because they were emigrants, and not because they were in that state of palpable destitution, which required immediate relief. Great efforts have recently been made to reduce the numbers of those who are in a condition to work, and I hope that by sending them back to their villages and districts, or to working gangs it will be possible to find room for the numerous starving people from the provinces who are now either on out door relief, or picking up a precarious living by begging in the streets. I am quite certain that the town of Madras has never been fuller of really destitute wanderers that it is at this moment.

Orders issued to reduce the cost of relief

District	Name of Village in which Relief Camp was opened	Date on which Relief Camp was opened	No. of Persons employed	No. of Days Relief was given	Deaths during the week ending 19th May		Deaths up to the week ending 26th May			
					Number Strength	Rate per Mille per annum	Number Strength	Total Deaths	Rate per Mille per annum	
Bellary	Adoni			65			365			
	Simpoor	17 March 77	6	360			467			
	Bellary	11 " "	7	3226			1175			
	Calhanadroogum						406			
	Hondapoor			725			905			
	Penmakondah			542			1207			
	Gudakeera						090			
	Anantapoor						405			
	Dharmaveram						539			
	Total			4926						
Nellore	Kandukur	29 Feby 77	0				243			
	Chandri	11 March "	7				76			
	Gudur	1 Jany "	17				735			
	Venkatagherry	26 Feby 77	22				930			
	Kalastherry	2 May 77	"				620			
	Sullerpet	6 " "					016			
	Ongole						373			
	Total						3001			
Chingleput	Cantallur	25 Aprl 77	1				2045			
	Palaveram	25 Dec 76	18	1694			1006			
	Poonamallee	16 " "	19	601			807			
	Chingleput	15 May 77					366			
	Total			2295			4592			
Cuddapah	Khaderabaz	11 Aprl 77	2				835			
	Grand Total			26900			50284			

3 15 9 3 4 3 4 4 3 4

2d (week Ending 2d June) and to be presented by 6,557 in the 9th (week Ending 26th May).

I Communicated the matter of this anxious Consideration of my Honorable Colleagues and of the Sanitary Commissioner

I agree with Dr Cornish's Para 16 on the whole, but I cannot divest myself of the impression that more systematic relief (village) Relief home) would have restrained wandering, relieved our Camps and mitigated the hopelessness of the Cases which have come under relief in Camps.

The Statistics of our Lagging Home (Village) relief of the destitute are now receiving increased attention at the hands of the District Officers & the Board

Board but doubtless are still very incomplete. Yet fragmentary though they be they are very suggestive. The Boards return for the week Ending on the 26th May shows that while we were Contending with a death rate of 524 per mille in our Camps throughout the Presidency, the death rate under home relief was only £90. — Cuddapah lost 1753 per mille in Camps but only £324 per mille amongst those relieved at home. Bellary lost 280 per mille in Camps and 58 amongst the latter. Salem lost 1267 per mille in Camps & 124 per mille under home relief &c &c

The same Returns (Boards Progs: 28th June) for the week Ending 2d June again present the difference in a modified form. The death rate in Camps averaged 374 per mille for the whole of the famine Districts, while under the Category of home relief it was 160 per mille. Cuddapah lost 1140 per mille in Camps and 227 per mille where relief was issued at home. In Bellary mortality was very great under both heads, the difference was less. — Salem lost 941 per mille in Camp against 119 per mille under home relief and so on. I will not attempt to account for the difference noted; some advantages of home relief reach & suggest themselves, but the matter will require investigation. The fact

fact of an important difference however there and is one that points to the great importance of calling the attention of District Officers to this branch of famine administration. I am myself prepared to order that the practice (wherever it exists) of dispersing miserable village destitutes out of their homes into distant relief Centres (Camps) be abandoned. Except where medical relief & special care is urgently needed.

Apart from the saving in the expenditure which is still being incurred on works - more especially in respect to relief Officers' non Effective and weakly Gangs of Emaciated and women - might appear in an Equally

Therefore

strength for the month of May, but I am afraid it has been so heavy as to indicate very severe pressure and distress amongst the destitute classes in Cuddapah.

8. Bellary. Returns have been received only from nine relief camps in the Bellary district, and these in some cases do not show the dates on which the camps were established. Up to the end of April there appear to have been five camps with an average strength of 4926, and 248 deaths. In May nine camps return a strength of 6419, with 565 deaths, but the returns for the Madras Kasira camps for April are brought into the May account, and thus add to the actual mortality of the month. The deaths in the Bellary camps (147) indicate at in May a very high rate of mortality.

9. Nellore. The number of camps of which I have received returns is eight, and these only for the month of May. Of a strength of 3501, there are returned 337 deaths, but some of these deaths appear to have occurred in April in Sorlorpett camps.

10. Chingleput. There have been only four relief camps instituted in this district, of these, two, one at Palaveram, and another at Poonamalee have been in work ever since the beginning of the year, while the camps at the Cortillier and Chingleput are of recent origin. The strength of the Palaveram camp I believe includes the relief workers as well as the destitute. All that is necessary to record of these camps at present is that

they show 331 deaths up to 26 May, and that the weekly strength furnishing this mortality remains to be adjusted when corrected returns are received.

11. Kurnool. The system pursued in the Kurnool district has been mainly one of village relief, but a camp was established at Khaderbagh on the 11th April, since which time out of an average weekly strength of 835, there have been 205 deaths. This indicates a very high rate of mortality, and probably of advanced destitution in the inmates.

12. Returns have been received of relief camps in Madura, Tinnevelly, and South Arcot, but the comparatively low ratio of mortality in the camp inmates, would appear to show that the deprivation and distress in these districts has been nothing out of the ordinary way. No returns of relief camps have been received from the Coimbatore district.

13. To sum up the results, as regards the eight famine districts. The returns prior to April 28 show an average strength of 26,980 receiving relief in camps, and 4,576 deaths, while the returns for May show 50,284 on relief, and 14,037 deaths.

14. In the weekly reports sent to me the causes of death are generally given. In two or three camps there have been a few deaths put down to cholera or small pox, but more than nine tenths of the whole are specified as famine diseases, dysentery, dropsy, diarrhoea, and debility.

15. The accompanying abstract return will show the registered mortality of each camp. I trust to be able to have more complete figures on this subject for the following months.

16. From my own observation of relief camps in Bellary, Cuddapah, Chingleput, and Madras, I do not think that the assembly of the people in centres of relief has had any bad effect on their health. Our camps have on the whole been very free of epidemics, notwithstanding the general prevalence of small pox and cholera in the districts. In these camps the poor have had shelter, food, and generally, medical supervision, all of which might have failed to reach them under a system of village relief, away from direct supervision of the district officials. The great mortality I attribute to the hopelessness of the cases from the time they came under relief, and not to causes connected with the aggregation of sick and feeble, or insanitary conditions arising therefrom.

17. The only peculiar feature of the mortality in relief camps, is the frequency of diseased conditions of the bowels. In slow starvation from which the great majority of the people have suffered before they seek relief, there is a diseased condition of the organs (bacteria) by means of which the nutriment of certain kinds of food is conveyed into the blood, and where this diseased condition exists to any great extent, there is very little prospect of recovery. The use of nutritious food fails to restore such persons, because the organs

which assimilate nutriment have lost their functions.
But besides this special condition of the organs of assimilation, it frequently happens that life is cut short in the famine stricken by dysentery, or diarrhoea, or secondary inflamation of the lungs. Infants at the breast and young Children up to the 7th year, and old people appear to succumb in the greatest numbers, to the famine. Cholera and small pox especially find their victims ready at hand in those who have been impoverished by bad food.

18. It is worthy of note that not in one single instance has there been any reason to suspect that the victims of famine have died of what is called "relapsing" or "famine" fever in Europe. This disease which is a variety of typhus fever, was recently supposed to have made its appearance in Bombay, but I believe that further enquiry has elicited the fact that the supposed relapsing fever was nothing more than the ordinary Malarious fever always present in Bombay. Our famine people in Madras have not shown symptoms of fever of any kind. Their temperature in fact, in the simple wasting of famine, is always lower than normal.
In looking back for evidence of the diseases accompanying famine, I find that in Guzerat in 1812 there was a very virulent epidemic of small pox prevailing with famine, just as we have now in this Presidency. It is curious to note that while a variety of typhus is the usual accompanying disease of famine in Europe, here in India, small pox

another contagious malady, should take the place of relapsing fever.

19. Sufficient has been stated to show that Chronic starvation (by which term I mean irregular and inadequate supplies of daily food continued for weeks or months) is a very deadly disease. So deadly is it in fact, that when degenerative changes of the assimilative organs have set in, recovery is almost hopeless. In acute starvation, such as in the instance of men immured in a coal pit for five or six days without food, there is not time for the destructive changes to occur in the bowel, and food judiciously administered will restore such persons to health. This is not the case in regard to persons who by a long course of privation have been forced to seek the shelter of relief Camps, and whenever these people may be, in camps or in their own villages, the deaths must be appallingly high. In camps we can take cognizance of the mortality, but the village registration will I fear show it, but imperfectly.

I have the honor to be
Sir
Your most obedient servant
[redacted] F.R.C.S.
Sanitary Commissioner
for Madras.

From Rec. 1877 Dept
72. 4539
The Sanitary Commissioner
for Madras

To
The Additional Secretary
to Government

Dated 11th June 1877
Recd 18 — 77 ...

81

No 665

Reporting on
the mortality in the Relief
Camps in this Presidency.

Ch 20570

Cash Rs 1,000 for the Relief of Distress in the Madras Presidency

1. Mr Grimes to be the channel
2. He to make monthly returns of the sums received & spent

Sent. 29/6/77

29 June 1877

To the Collector of Chingleput
" all Collectors of Districts
Md Secretary Committee
the Honorable [illegible]